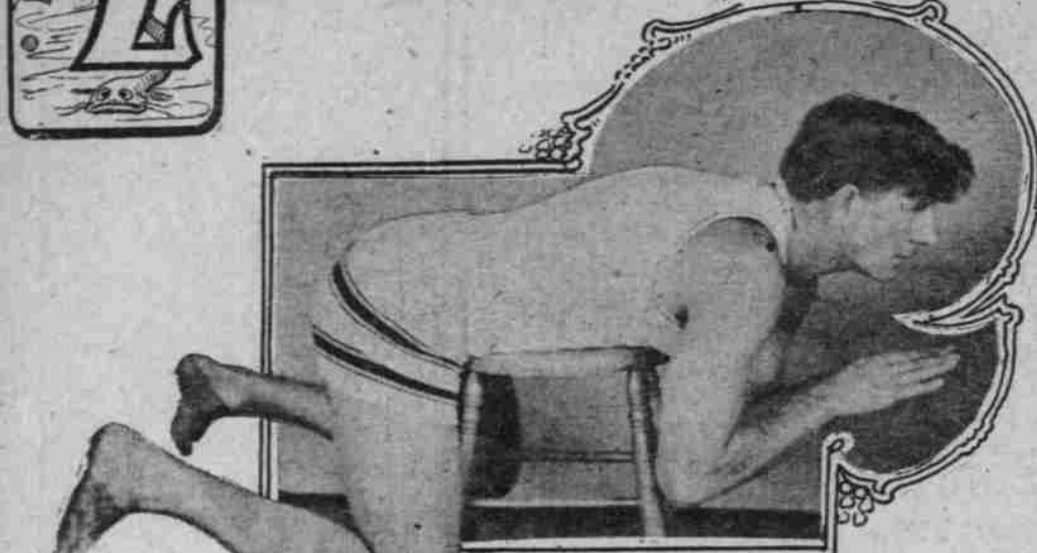
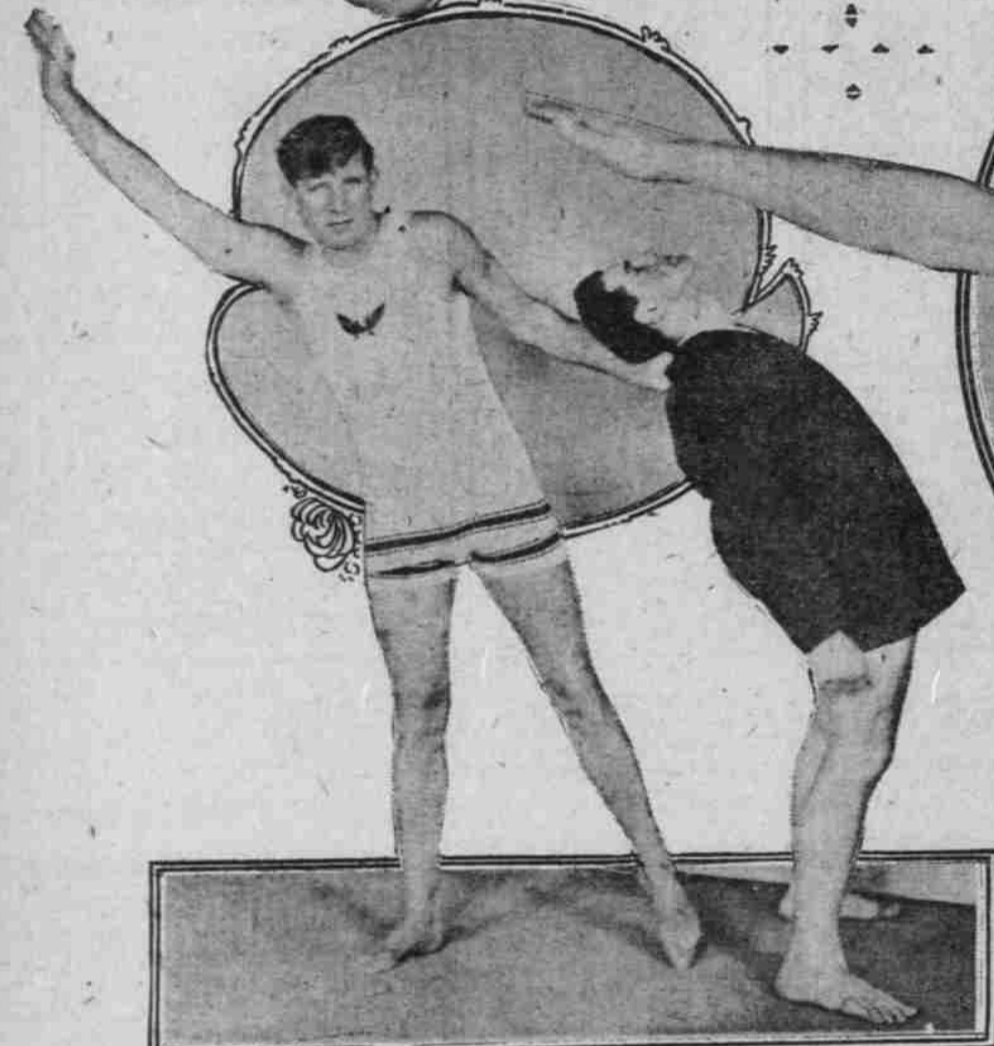


# LEARNING HOW TO SWIM

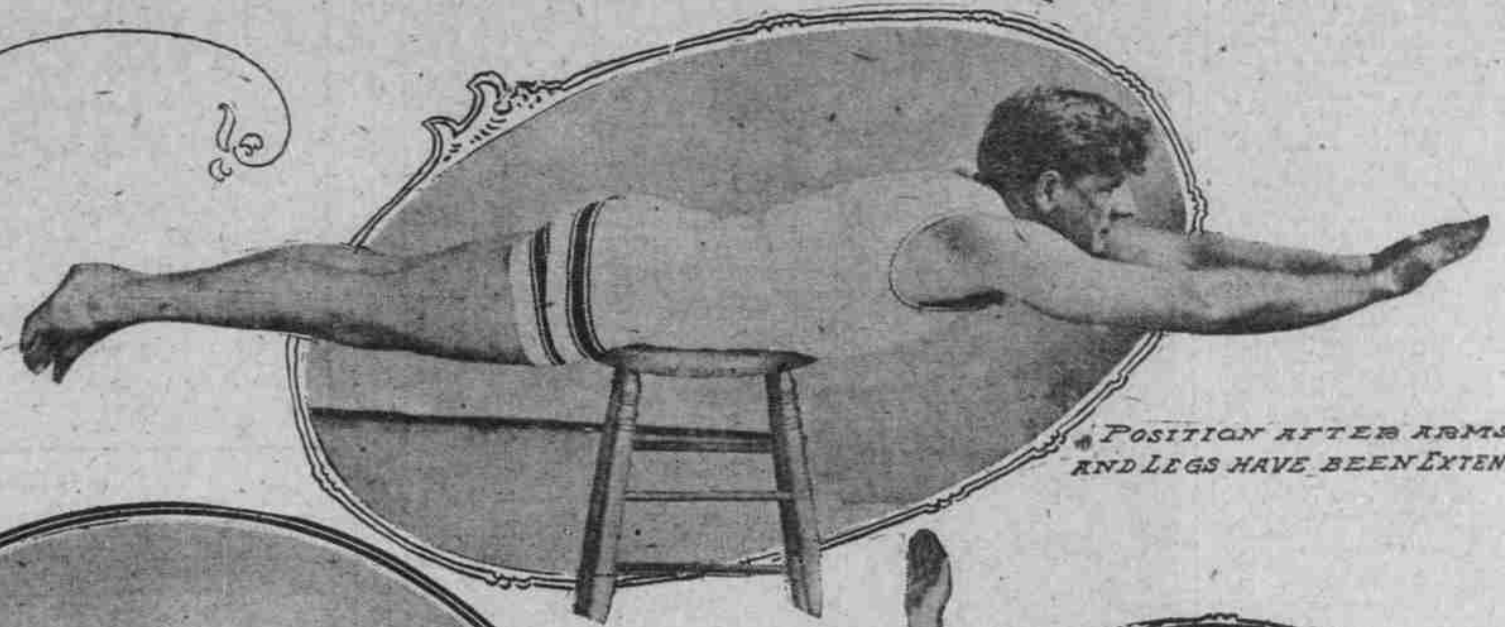
By Arthur R. C. Cavill, the World's Most Expert Swimmer, Now Swimming Instructor of the Multnomah Amateur Athletic Club



FIRST POSITION TO ASSUME IN SWIMMING



THIRD POSITION OF ARMS



POSITION AFTER ARMS AND LEGS HAVE BEEN EXTENDED

HOW TO GRASP A DROWNING PERSON - CLOTHED

HOW TO HOLD A DROWNING PERSON - NUDE

## SWIMMING DON'T'S

Do not swim dog-fashion. That is, dig down through the water with the hands. After the arms have been extended, move them outward and away from the body horizontally. Do not splash the water with the feet. Bring the knees under the stomach and extend them backward wide apart and bring the knees and ankles gradually together. Don't try to swim with the body. Use the arms and legs.

SHALL only attempt in this article to treat of the fundamental principles of the art of swimming. No attempt will be made to teach here the hundreds of fancy strokes, which can be mastered after one has learned to swim right. If beginners and those who have learned wrong will follow closely the instructions which I have set down here, with patience and a determination to master them, the result will be surprising to the person and his friends. Animals swim by what scientists call instinct. They cannot raise themselves out of the water. By reason of this fact they remain in a position which enables them to keep afloat if they work their legs. They soon learn that it is not difficult by the employment of different motions to move about as they desire. It should be the same in the case of human beings, but owing to the fact that the human head is so much larger in proportion to the body than in the case of animals, when men first enter the water they find it impossible to turn about and crawl out. It is my belief, however, in view of the fact

that practice enables men to overcome this physical condition, that if discretion is used and there is a reasonable amount of confidence on the part of the beginner, there is no reason why any person should not be able to swim on first entering the water with that end in view. The first thing necessary in learning to swim is the water. A swimming tank is best, but if this is not available, any shallow stream or pool will do. The water should be about waist deep. In enter the water with a friend. Be neither too serious nor too humorous. Clasp the fingers of both hands together and place these back of the head, with the elbows extended outward. Your friend should then take hold of your body and lay you gently backward in the water. While he is still holding you, stretch out at full length until you feel easy and rested. Your friend should then gradually release you and you will find that you can remain in that position unattended as long as you care to. This experience will give you confidence in your own ability to float in the water.

## SWIMMING EPIGRAMS

One finger above the water in swimming is like another ton placed on an already overloaded wagon. Floats and other patent articles used in learning to swim are like learning the multiplication table as a rule for division in mathematics. Too much seriousness in the water is like a man who has just learned of the sudden demise of his mother-in-law at a ball. On the other hand, too much levity is like some men at their mother-in-law's funeral.

## Noted Swimmer All His Life

Won a Prize at 5 Years of Age in Queen Victoria's Presence.

BY G. I. KELLER.  
"I HAVE not succeeded in amassing any great amount of this world's goods; I have not been a prominent figure in the world-wide peace movement, or a great statesman, but I am satisfied or a great swimmer, but I am satisfied with my place in life and what I have accomplished for humanity. I have been fortunate enough to be in a place where I could save the lives of several people from drowning and have taught others how to do the same thing and keep from drowning themselves and I am satisfied. All of us can't be experts in everything and I have tried to master one of the world's arts and have reasons to believe I have succeeded. I asked Arthur Cavill what he wanted to say as an introductory statement to an article by him on the fundamental principles of the art of swimming and he spoke the above words. In his way Cavill is a character. He is one of the great mass of migratory beings of earth, who move from spot to spot because their vocation is such that they can always do better elsewhere until finally the habit grows on them until roaming is a part of their business. It offers new fields for conquest and adventure. The great Cavill family, of which he is a member, is accounted the greatest swimming family in the world. There are nine children and from the oldest to the youngest all have been world swimming champions at one time in their lives. This family has a standing challenge to the world that it can beat any other team of nine swimmers. "All there is to Anetia Kellerman is her figure. Were it not for that she would amount to much." For two years of his early life amateur champion of Australia and later champion of the world from 100 yards to one mile, instructor in swimming in all of the principal athletic and aquatic clubs of the world, including the famous Bath Club of London and now instructor of swimming at Multnomah Amateur Athletic Club, such is the record of Professor Cavill, that at that he is only 23 years old. Cavill holds two of the greatest life-saving medals in the world. He was given one medal by the English Royal Humane Society for rescuing a Miss Duckworth, a prominent English beauty, from a watery grave in the Indian Ocean. The woman fell overboard from a ship on which Cavill was also a passenger. He jumped after her and kept afloat two hours before they were rescued. He also won a medal from the National Ship Wreck Society of Australia for saving the life of a son of General Graham, of the English army. On Australia the government compels the teaching of swimming in the public schools and when he was 14 years of age, Cavill was teaching one of these schools. It was while teaching that he met Anetia Kellerman and taught her to swim.

where they have successfully pegged their claim. The convicts, in turn, escape from the settlement by two or three and remain hidden for a day or two of regular return will be in their pockets full of nuggets, and have a great time. Others get away in their turn, but come back eventually also with gold. The mine is thus kept regularly working by shifts of convicts. The latter, when regularly sentenced to a few days' imprisonment for absence without leave, are given a low price to pay for a share in a gold mine. Where the latter is the authorities have never yet been able to discover. PARIS, Aug. 14.—(Special.)—Some ultra-exact statisticians has calculated that on the day of the National Fete, July 14, there were 2663 open-air balls in Paris. Over 8,000,000 dancers expended enough energy to carry a 500-ton train more than 1000 miles at a speed of 30 miles an hour. In the course of their twirlings these 4,000,000 couples covered a distance of 525,350 miles. There are few prettier sights in Paris than the open-air ball. Decorum is absolute; there is even an etiquette. Though the casual corner may ask the lady of his choice for a dance, the latter is quite at liberty to refuse and to give her arm to another without giving ground for offence. The little "midinette" is the graceful creature, and her evolutions, under the soft illumination of the paper lanterns, not only represent the poetry of motion, but bear witness to her charm and "savoir-faire." To the Paris population July 14 is still a great day. Crews of British submarines are taught how to use a safety helmet and waterproof jacket, designed to save them in case the submarine on which they are engaged is sunk.

## NATURAL RESOURCES OF THE COUNTRY

Bulletins Giving Accurate Information Furnished Free by the Geological Survey's Portland Office.

THE United States Geological Survey is making a study of the natural resources of the country. The results of these investigations appear in published form and are always available to the public through the publications of the survey. Arrangements have recently been made whereby all publications pertaining to the Pacific Northwest are placed for sale and distribution at the district engineer's office in Portland, 225 Third Building, corner Tenth and Morrison. Publications of the survey consist of bulletins, water supply papers, professional papers, mineral resources, topographic atlas sheets or quadrangles and geologic folios. Topographic sheets and geologic folios are sold at cost. Other publications are distributed free. A limited number of the Geological Survey for direct distribution. A certain number are delivered to Representatives and Senators in Congress for distribution. A certain number are deposited with the Superintendent of Documents in Washington, D. C., from whom they can be purchased at a nominal price. Copies of all publications are furnished the principal libraries throughout the country, where they can be consulted by those interested. Topographic atlas sheets and geologic folios are sold at cost of publication, the topographic sheets at 5 cents each or 25 per hundred, and the geologic folios for

25 cents each, with a discount of 40 per cent on an order of 24 or more folios. To the present time there have been completed in Oregon 17 atlas sheets and three geologic folios; in Washington 23 atlas sheets and four folios; in Idaho 17 atlas sheets and three folios; in Nevada 15 atlas sheets and one folio; in California 112 atlas sheets and 23 folios, besides a large number of special sheets. All the atlas sheets and folios in Oregon and Washington, Idaho, Montana and Northern California and Nevada are on sale in the Portland office of the United States Geological Survey. Orders for sheets and folios in other states will be referred to the office at Washington, D. C. Index maps showing the areas in each state mapped to date will be furnished upon application. Mineral Resources. Publications of the Division of Mining and Mineral Resources appear in the form of bulletins. Those in hand for distribution are as follows: Bulletin 241—Chapters B and C contain results of the investigations of the coal fields of Wyoming, Colorado, New Mexico, Utah, Oregon and Virginia in 1907. Bulletin 255—Geology of the Great Falls Coal Field, Montana. Bulletin 270—The Fire-resistant Properties of Various Building Materials. Bulletin 274—Stockless Composition of Coal in Boiler Plants, with a chapter on Central Heating Plants.

Bulletin 274—Mineral Resources of the Kootenai-Chitina Region, Alaska. Bulletin 275—The Forty-Mile Quadrangle, Yukon-Tanana Region, Alaska. Bulletin 276—Peat Deposits of Maine. Bulletin 278—Results of Purchasing Coal Under Government Specifications. Bulletin 279—Chapters B to F inclusive, Mineral Resources of Alaska. This is a report of the progress of investigations in 1908 and contains the results of studies of the mineral resources of this very interesting territory, sub-divided as follows: Chapter B treats of Southeastern Alaska; Chapter C, Prince William Sound, Kental Peninsula, Southwestern Alaska; Chapter D, Copper River Region; Chapter E, Fairbanks, Yukon-Tanana and lower Yukon Regions; Chapter F, Seward Peninsula. Bulletin 280—Contributions to Economic Geology in 1908. The following advance chapters have been received to date: A, Gold and Silver; B, Investigations Relating to Copper; C, Investigations Relating to Lead and Zinc; E, Investigations Relating to Iron and Manganese; H, Investigations Relating to Cement and Concrete Materials; L, Investigations Relating to Salines. There are also in hand two advance chapters from the report of mineral resources of the United States for 1908, treating of the Production of Slate and Phosphate Rock. Bulletin 285—Brigantling Tests at the

United States Fuel-Testing Plant, Norfolk, Va., 1907-8. Water Supply Papers. The results of investigations of the Water Resources Branch of the United States Geological Survey are published in form of Water-Supply Papers and are distributed free of charge. The following papers are on hand for distribution: Water Supply Papers 122, 124 and 125, contain stream flow data for the calendar year 1904. No. 122 treats of the Colorado River and part of the Great Basin drainage; No. 124 of the Great Basin drainage; No. 125 of the Columbia River and Puget Sound drainage basins. Water supply papers 126, 127 and 128, contain stream flow data for the calendar year 1905. No. 126 treats of the great basin drainage; No. 127 of the great basin and Pacific Ocean drainage in California and Colorado River drainage below Gila and Colorado River drainage below Gila and Puget Sound drainage basins. Water supply papers 129 and 130 contain the stream flow data for the calendar year 1906. No. 129 treats of the great basin and Pacific Ocean drainages in California and Lower Colorado River drainage. No. 130 contains the stream flow data for the Columbia River and Puget Sound drainage basins, and Pacific Ocean drainage in Oregon, for 1906. The survey's stock is exhausted but the paper can be purchased from the superintendent of documents. Water supply papers 131 and 132 contain a very interesting report on that heretofore neglected territory, Central Oregon. No. 131 is a report of the geology and water resources of a portion of

South-central Oregon lying mainly within Lake County. No. 132 is a similar report on the Harney basin region. Water supply paper 133, some desert watering places in Southeastern California and Southwestern Nevada. This is a very interesting description of the famous Death Valley and adjoining country. Water supply paper 134 contains the results of stream flow investigations in Yukon-Tanana region, Alaska, for 1907 and 1908, including Fairbanks, Circle and Rampart districts. Water supply paper 135, treats of the disinfection of sewage and sewage filter effluents, with a chapter on putrescibility and stability of sewage effluents. In addition to the foregoing publications there are on hand a few copies of professional paper No. 58, which is a very interesting geologic report on the miocene of Astoria and Coos Bay, Or. Orders for topographic atlas sheets and geologic folios must be accompanied by money order, draft or cash (the exact amount). Request for publications should state specifically the publication desired. All communications should be addressed to F. C. Stevens, district engineer, United States Geological Survey, Portland, Or. CONVICTS HAVE GOLD MINE Penal Settlement Has Useful Adjunct in Jungles. PARIS, Aug. 14.—(Special.)—Convicts in French Guinea seem to be in luck. They are reported to be working a gold mine on their own account. Their endeavors have apparently so far failed to discover

## AERO LABORATORY PLANNED

France to Have \$1,000,000 Experiment Station for Aviation. PARIS, Aug. 14.—(Special.)—It is proposed to build an aero-technical laboratory in France. The total cost is estimated at \$1,000,000. M. Deutsch de la Meurthe's donation of \$100,000 is to stand as the first of what is hoped to be a long list of subscriptions, and the fund thus acquired is to be placed under the control of a joint committee, consisting of several members of the Academy of Science and an equal number of leading engineers. The first expenditure for the equipment of a laboratory will be on the construction of a long tunnel for aeroplane tests against winds of varying speeds. The tunnel, which is to be modeled on a miniature of the kind which already exists at Middletown, Conn., is to be 300-foot

## 2663 DANCES ON ONE DAY

Peculiar Statistics of Phase of National Fete in Paris. PARIS, Aug. 14.—(Special.)—Some ultra-exact statisticians has calculated that on the day of the National Fete, July 14, there were 2663 open-air balls in Paris. Over 8,000,000 dancers expended enough energy to carry a 500-ton train more than 1000 miles at a speed of 30 miles an hour. In the course of their twirlings these 4,000,000 couples covered a distance of 525,350 miles. There are few prettier sights in Paris than the open-air ball. Decorum is absolute; there is even an etiquette. Though the casual corner may ask the lady of his choice for a dance, the latter is quite at liberty to refuse and to give her arm to another without giving ground for offence. The little "midinette" is the graceful creature, and her evolutions, under the soft illumination of the paper lanterns, not only represent the poetry of motion, but bear witness to her charm and "savoir-faire." To the Paris population July 14 is still a great day. Crews of British submarines are taught how to use a safety helmet and waterproof jacket, designed to save them in case the submarine on which they are engaged is sunk.